

Experimental and Molecular Pathology

UNIVERSITY OF HAWAII LIBRARY

VOLUME 15, 1971

LIBRARY USE ONLY

Editorial Board:

*Renato Baserga
Earl P. Benditt
Klaus G. Bensch
Richard B. Cohen
Sidney Farber
Jack C. Geer
Godfrey S. Getz
Robert J. Glaser
Alexander Haddow
W. Stanley Hartroft
Rolla B. Hill
William Hollander
Simon Koletsky
David Kritchevsky
Henry C. McGill
Joseph L. Melnick
Winfield S. Morgan
Fraser Mustard
Theodore Peters, Jr.
Hans Popper
Abel Robertson
Albert B. Sabin
George D. Sorenson
Carlos Tejada
Julien L. Van Lancker
Arthur F. Whereat
Tomizo Yoshida*

Editors:

*Frederick Coulston
Wilbur A. Thomas*

Managing Editor:

Kyu Taik Lee

Assistant Editors:

*Robert M. O'Neal
Leon Golberg*



ACADEMIC PRESS
New York and London

Copyright ©, 1972, by Academic Press, Inc.

ALL RIGHTS RESERVED

No part of this volume may be reproduced in any form, by photostat, microfilm, by retrieval system, or any other means, without written permission from the publisher.

MADE IN THE UNITED STATES OF AMERICA

FUMIGATED 1995

CONTENTS OF VOLUME 15

NUMBER 1, AUGUST 1971

V. CIOLO, P. SCORZA BARCELLONA, AND B. SILVESTRINI. Study of the Potential Carcinogenicity of Topical Drug. Suggestions for a New Experimental Approach.....	1
RICHARD W. ST. CLAIR, BILL C. BULLOCK, NOEL D. M. LEHNER, THOMAS B. CLARKSON, AND HUGH B. LOFLAND, JR. Long-Term Effects of Dietary Sucrose and Starch on Serum Lipids and Atherosclerosis in Miniature Swine.....	21
CARLOS, ESPAÑA, MARY ANN BRAYTON, AND BORIS H. RUEBNER. Electron Microscopy of the Tana Poxvirus.....	34
R. ABRAHAM, W. DOUGHERTY, L. GOLBERG, AND F. COULSTON. The Response of the Hypothalamus to High Doses of Monosodium Glutamate in Mice and Monkeys. Cytochemistry and Ultrastructural Study of Lysosomal Changes.....	43
A. VAN HARREVELD AND EVA FIFKOVA. Light- and Electron-microscopic Changes in Central Nervous Tissue after Electrophoretic Injection of Glutamate.....	61
JAMES W. KESTERSON AND WILLIAM W. CARLTON. Histopathologic and Enzyme Histochemical Observations of the Cuprizone-Induced Brain Edema.....	82
JAMES E. HAGADORN AND KAREN E. MERCOLA. Immunologic and Morphologic Studies of the Acute Effect of Anti-Lung Serum.....	97
JULIO M. FRASCA, OSCAR AUERBACH, VERTA R. PARKS, AND JAMES D. JAMIESON. Electron Microscopic Observations on Pulmonary Fibrosis and Emphysema in Smoking Dogs.....	108
T. DISHON, E. ROSENMANN, A. DURST, AND J. H. BOSS. Urinary Excretion of Kidney Antigens in Rats with Experimental Glomerulonephritis and Pyelonephritis.....	126

NUMBER 2, OCTOBER 1971

TAKESABURO OGATA, HIDESHIGE IMAI, AND FREDERICK COULSTON. Pulmonary Acariasis in Rhesus Monkeys: Electron Microscopy Study.....	137
ESTEBAN MEZEY AND PETER R. HOLT. The Inhibitory Effect of Ethanol on Retinol Oxidation by Human Liver and Cattle Retina.....	148
MARA PETERSON, ALLAN J. DAY, RONALD K. TUME, AND ESTER EISENBERG. Ultrastructure, Fatty Acid Content, and Metabolic Activity of Foam Cells and Other Fractions Separated from Rabbit Atherosclerotic Lesions.....	157
K. T. LEE. J. JARMOLYCH, D. N. KIM, C. GRANT, J. A. KRASNEY, W. A.	

THOMAS, AND A. M. BRUNO. Production of Advanced Coronary Atherosclerosis, Myocardial Infarction and "Sudden Death" in Swine.	170
OSCAR FRANK, ANITA LUISADA-OPPER, MICHAEL F. SORRELL, ALLAN D. THOMSON, AND HERMAN BAKER. Vitamin Deficits in Severe Alcoholic Fatty Liver of Man Calculated from Multiple Reference Units.	191
K. SUZUKI, S. OOKAWARA, AND G. OONEDA. Increased Permeability of the Arteries in Hypertensive Rats: An Electron Microscopic Study.	198
W. H. BUTLER AND G. C. HARD. Hepatotoxicity of Dimethylnitrosamine in the Rat with Special Reference to Veno-Occlusive Disease.	209
W. J. CLIFF. The Ultrastructure of Aortic Elastica as Revealed by Prolonged Treatment with OsO_4	220
NOEL D. M. LEHNER, THOMAS B. CLARKSON, AND HUGH B. LOFLAND. The Effect of Insulin Deficiency, Hypothyroidism, and Hypertension on Atherosclerosis in the Squirrel Monkey.	230
W. A. THOMAS, R. A. FLORENTIN, S. C. NAM, J. M. REINER, AND K. T. LEE. Alterations in Population Dynamics of Arterial Smooth Muscle Cells During Atherogenesis. I. Activation of Interphase Cells in Cholesterol-fed Swine Prior to Gross Atherosclerosis Demonstrated by "Postpulse Salvage Labeling".	245

LETTER TO THE EDITOR

S. SRINIVASAN AND R. O. RECKNAGEL. Carbon Tetrachloride Hepatotoxicity in Female Rats.	268
--	-----

NUMBER 3, DECEMBER 1971

U. N. RIEDE, H. STRÄSSLE, L. BIANCHI, AND H. P. ROHR. Ultrastructural-Morphometric Analysis of Rat Liver Cell After Orotic Acid Administration.	271
R. L. ROBISON, K. C. HAYES, H. L. MCCOMBS, AND T. P. FAHERTY. Effect of Dietary Fat and Cholesterol on Circulating Lipids and Aortic Ultrastructure of Squirrel Monkeys.	281
JAMES E. HAGADORN AND KAREN E. MERCOLA. Experimental Goodpasture's Syndrome: Acute Pulmonary Lesions Caused by Kidney-Localizing Anti-Lung Antibodies.	304
HUSHANG M. PAYAN. Morphology of Cobalt Experimental Epilepsy in Rats. . .	312
HERSCHEL SIDRANSKY, D. S. R. SARMA, AND ETHEL VERNEY. Effect of Ethionine on Hepatic Polyribosomes and Protein Synthesis. Studies Dealing with the Acute Administration of Ethionine to Fasted or Fed Mice or to Rats Fed a Diet Containing Ethionine.	320
Y. KANKE, R. I. BASHEY, Y. MORI, AND A. A. ANGRIST. Effect of Puromycin and Salicylate on Biosynthesis of Mucopolysaccharides and Glycoproteins in Bovine Heart Valve.	336
TETSUO SHIMAMURA AND ASHTON B. MORRISON. Secondary Hyperparathyroidism in Rats with an Experimental Chronic Renal Disease.	345
A. H. NAGI, F. ALEXANDER, AND A. Z. BARABAS. Gold Nephropathy in Rats—Light and Electron Microscopic Studies.	354

WATSON D. REID, BASIL CHRISTIE, MICHAEL EICHELBAUM, AND GOPAL KRISHNA. 3-Methylcholanthrene Blocks Hepatic Necrosis Induced by Administration of Bromobenzene or Carbon Tetrachloride	363
KENNETH P. JOHNSON AND DONALD P. BYINGTON. Subacute Sclerosing Pan-encephalitis (SSPE) Agent in Hamsters. I. Acute Giant Cell Encephalitis in Newborn Animals	373
AUTHOR INDEX	380
SUBJECT INDEX	381

Digitized by the Internet Archive
in 2026

Biochemical Toxicology of Insecticides

Edited by R. D. O'BRIEN

*Division of Biological Sciences
Cornell University
Ithaca, New York*

IZURU YAMAMOTO

*Department of Agricultural Chemistry
Tokyo University of Agriculture
Tokyo, Japan*

Can we control pests and increase food production without poisoning the planet? Further knowledge of insecticides is required before we can answer this question.

This book, comprised of papers delivered at the Fifth United States-Japan Cooperative Science Program, held in Tokyo in June, 1969, presents some of the major problems and outlines the state of the art of the study of insecticide action and metabolism. It contains a substantial amount of detail, which will be of interest to teachers and researchers in this area. It also contributes to the knowledge of the general public in this now controversial field, because it indicates the depth to which research has penetrated and which particular problems are of current interest. Some of the major areas discussed include:

- the role of microsomes in metabolism of very diverse toxicants and drugs
- the complexity of the pathways involved in breakdown of insecticides
- the polyfactorial approach to analysis of structure-activity relations.

This book will be essential to pesticide researchers and entomologists, and also will be of great value to biochemists and pharmacologists.

1970, 218 pp., \$8.50

AP 2642



Academic Press

NEW YORK AND LONDON

111 FIFTH AVENUE, NEW YORK, N.Y. 10003
BERKELEY SQUARE HOUSE, LONDON W.1



Enzymes of The Arterial Wall

By **John Esben Kirk**
*Washington University
Division of Gerontology,
St. Louis, Missouri*

This review work provides an extensive, comprehensive, and up-to-date survey of enzyme activities in human and animal arterial and venous tissues. It contains a systematic description of 98 different enzymes, and nearly all enzymes in the carbohydrate metabolic pathways are included. Each enzyme is described separately, using the sequence list of the commission on enzymes of the International Union of Biochemistry and is followed by a reference list. This and the detailed subject index make information easily accessible.

Data were acquired from all available scientific journals on this subject and cover research conducted in twenty-eight countries. They represent 27,200 quantitative biochemical assays performed with reliable analytical techniques on both normal and arteriosclerotic tissue. Numerous statistical calculations show differences in activities exhibited by various types of blood vessels, by arteriosclerotic and normal tissue, and by samples from men and women. In addition, coefficients of correlation between age and enzymic values are listed.

1969, 494 pp., \$21.50

AP 2556



Academic Press
NEW YORK AND LONDON
111 FIFTH AVENUE, NEW YORK, N.Y. 10003
BERKELEY SQUARE HOUSE, LONDON W.1

